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ABSTRACT

A series of explorations of faculty goals drawn from a survey of academic careers is described, providing a view of academic career goals as the faculty see them. The study was conducted at a mid-sized comprehensive state university in the rural midwest. Data were collected as part of a 1984 survey of critical events in faculty careers. Faculty were asked to list their short-term and long-term goals and discuss their educational and career histories and provide such basic demographic data as age, sex, and marital status. Information was gathered on the following goals: educational, professional, curricular, teaching, research, writing and publishing, administrative, professional practice and service, retirement, and life away from work. Results include the following: faculty share a common core of goals for professional advancement, research, writing and publishing, and teaching; the absence of goal differences on the basis of sex or marital status is notable; faculty of different ages and different stages of disciplinary, academic, and institutional tenure hold significantly different career goals; goals that are not closely linked to a particular career dimension may need to be studied from several perspectives; and a multidimensional approach to the study of academic careers offers a more complete picture of how faculty pursue professional goals. Appended are: statistics from the survey on faculty career goals; a correlation matrix for all variables considered in the analysis; and a table showing the average number of goals listed in each career stage. Contains 24 references. (SM)

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An Analysis of Faculty Goals: Personal, Disciplinary, and Career Development Dimensions

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> *It is the faculty's perceptions of their circumstances, however inconsonant these perceptions may be with the "facts," which drive their responses to their environment. ...The faculty condition cannot be understood apart from the faculty's own perceptions of its condition.* (Bowen and Schuster, 1986, p. 138)

Understanding goals is critical to understanding faculty, a profession whose motivations, commitments and values are intrinsic rather than extrinsic. Such understanding is particularly important today, as the tradition of common academic values is challenged by descriptions of a fragmented university (Bowen and Schuster, 1986; Clark, 1987). Yet despite over twenty years of study, we still lack an adequate higher education literature on faculty from their own perspective (Finkelstein, 1984; Blackburn, et al., 1986).

Few studies have examined faculty goals directly. Research on motivation, interests, values, or commitments–all of which can affect and be affected by goals–is marked by a diversity of theory and method that makes generalization difficult. The greatest volume of work has focused on research motivation, usually as it relates to productivity. Research interest and activity appear to be highest early in the career and decline thereafter (Finkelstein, 1984; Lawrence, 1984; Blackburn, et al., 1986); although highly productive researchers maintain a strong level of commitment throughout their careers (Blackburn and Havighurst, 1979). Some studies of the teaching role conclude that faculty interest in and commitment to teaching increases as the career advances (Finkelstein, 1984; Blackburn, et al., 1986); other evidence suggests that commitment to teaching and teaching performance remain constant over the course of the career (Blackburn, 1985).

There has been little discussion of other aspects of the faculty role. Lawrence (1984), in a review based on unpublished as well as published works, concluded that the post-tenure period is marked by a renewed interest in personal goals, that

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institutional longevity is accompanied by increasing emphasis on service, and that the approach of retirement signals withdrawal from the institution.

Research on how we develop impressions suggests that goals are a dominant element in our images of other people. Trzebinski and Richards (1986) found that information about a person's goals served to organize information about their characteristics and experiences, allowing impressions to develop more quickly and be remembered in greater detail than when characteristics and experiences were presented alone. They concluded that, although we apply abstract knowledge to hypothetical problems, we use action-oriented scripts in real-life situations. Goals are action-oriented, characteristics and experiences are not.

This paper describes a series of explorations of faculty goals drawn from a survey of academic careers. Given the lack of research in this area, few hypotheses could be generated. Questions which directed the analyses included: What kinds of goals do faculty have? Do goals differ on the basis of personal or academic characteristics, such as sex or rank? Do goals change over time; if so, how can such changes be measured? The analyses presented here offer a view of academic career goals as the faculty see them.

Methods

The study was conducted at a mid-sized comprehensive state university located in the rural Midwest. Having weathered the financial troubles of the 70's, the university is now in a period of increasing applications, expanding resources, and a growing reputation as a moderately priced but academically sound institution. The data were collected as part of a 1984 survey of critical events in faculty careers. Survey questions were open-ended and two questions on goals were included. Faculty were asked to list their short-term (two to five years) and long-term (ten or more years) goals. The survey also asked for educational and career histories, and basic demographic information such as age, sex, and marital status.

From a sample of 400 faculty, 179 questionnaires were received (44%). The original sample was stratified by sex, disciplinary area, and rank; distribution of responses was adequate for comparisons across these dimensions. The study sample included 142 men and 37 women, of whom 56 were full professors, 58 associates, and 65 assistants. Although some minority faculty were included in the sample, the number was too small to analyze differences on this basis.

The goals were sorted into categories based on content and a hierarchy of related areas developed. To facilitate analysis of the data, I attempted to combine categories with less than five entries. This was not possible in all cases; for example, only two faculty listed "going on a sabbatical" as a goal. The goal categories became the dependent variables for the study.

Independent variables included sex and marital status (personal variables); rank and disciplinary area as defined by Biglan (1978a, 1978b) (academic variables); and five measures of time: age, the number of years since receiving a terminal degree, the number of year since the first academic position, the number of years at the current institution, and the number of years at the current rank (included as a measure of "stuckness," see Clark and Lewis, 1985). Two additional variables, the numbers of short- and long-term goals, were also examined.

Although they are often used to study facets of faculty careers such as development (Blackburn and Havighurst, 1979; Baldwin and Blackburn, 1981; Entrekin and Everett, 1981), satisfaction (Stumpf and Rabinowitz, 1981), and productivity (Fulton and Trow, 1974; Bayer and Dutton, 1977); different measures of chronological and career age are seldom compared. Morrow and McElroy's (1987) study of job commitment and satisfaction suggested the value of using multiple measures in a single study. Their study of public employees also showed that different measures of career stages revealed different patterns of change, and suggested that career stage models need to specify how age, cohort, position, and measures of tenure fit together within a multidimensional concept of career development.

The time measures represent the progression from receiving the degree through receiving the first academic position, the position at this institution, and promotion in rank. Therefore, path analysis was used to model the relationships among the five measures of time, using multiple regression to estimate path coefficients. Equations for each variable were chosen to maximize the amount of variance explained (R^2) with standardized coefficients at or near $p<.01$. This analysis presumes a developmental rather than demographic interpretation of cross-sectional data; however, it provides one method of examining the relationships between these highly correlated measures.

Analysis of variance (ANOVA) was used to examine relationships between the independent variables and the goal categories. Time measures were converted to five-year ranges, since linear relationships with goals could not be assumed. All differences reported are significant at $p<.01$ unless otherwise noted.

Results

Content analysis. The faculty respondents listed 782 goals, an average of 2.29 per person. Faculty listed up to five short-term and seven long-term goals, with a mode of two for short-term goals and one for long-term goals. Content analysis identified 92 goals that were grouped into eleven categories: 1) Education, 2) General Professional, 3) Curriculum and Program Development, 4) Teaching, 5) Research, 6) Writing and Publishing, 7) Administration, 8) Professional Practice or Performance, 9) Service, 10) Retirement, and 11) Life-Away-From-Work. The complete list of goals appears in Appendix A.

Four areas–General Professional (150 goals), Research (137), Writing and Publishing (111), and Teaching (98)–represented the core goals of the faculty. They were not only the largest categories, but also had the highest correlations with the number of goals listed. In other words, the probability of listing one or more goals in these four categories increased with the number of goals listed. The other six areas were more individualized: Fewer faculty listed such goals and the probability of doing so was not closely linked to the number of goals listed.

Personal variables. Neither sex nor marital status had a direct impact on the number of goals listed in the various categories. Sex, however, was correlated with other independent variables including rank (women were concentrated in the lower ranks), marital status (87% of the men but only 54% of the women were married) and all time measures except age (men had held their degrees longer, been in academia longer, been at this institution longer, and been in rank longer than women). Where appropriate, therefore, related variables were used as controls. For example, when academic rank was controlled, the relationship between sex and the time measures disappeared. The apparent differences were due to the higher proportion of women in lower ranks.

Academic variables. Some analyses of goal differences across disciplinary areas and rank reflected the traditional academy: Faculty in the life sciences listed more research goals than other areas; a finding consistent with Fulton and Trow's data on frequency of publication (1974). Liberal arts faculty listed more writing and publishing goals, followed closely by social scientists. Only faculty in applied fields listed goals in the practice/performance area. Full professors listed more retirement goals than more junior faculty, although age was a better predictor.

Other analyses revealed less frequently mentioned, but not unexpected, differences: Health sciences faculty listed more educational goals than other areas,

due to nurses and allied health professionals planning to complete doctoral degrees and physicians seeking board certification. Assistant professors listed more educational goals than associate and full professors, although holding a masters degree rather than a professional or doctoral degree was a better predictor.

Assistant professors listed more professional goals than associates or full professors. However, when the presence of retirement goals was controlled, the impact of rank disappeared. In other words, full professors not yet thinking of retirement listed the same number of professional goals as associate and assistant professors. Assistant professors continuing in rank more than fifteen years gave up on tenure and promotion. Associates, however, had not lost hope of promotion even after fifteen years in rank. Very few full professors listed promotion as a goal; those who did hoped for emeritus status or an endowed chair.

There were no differences on the basis of rank or discipline in teaching, administrative, service, or life-away-from-work goals. Differences in the curricular category were inconsistent and suggested that this group may include qualitatively different goals.

Measures of time. Analyses of these variables highlighted the complexity of the academic career. Figure 1 presents box plots displaying the 10th, 25th, 50th, 75th and 90th percentiles for each measure. The notches represent 95% confidence bands above and below the median. Both the decreasing median and attenuated range highlight the chronological progression across the four career measures.

Figure 2 presents the final path model. Each time measure had its greatest impact on the measure immediately following it and a smaller follow-on impact on the next. Thereafter, its influence was indirect only. The exception was years-in-academia, which had a greater influence on years-in-rank than did years-at-current-institution. Although a range of possibilities was examined, disciplinary area had only the slight impact shown in the final model. Other models tested for the direct effect of sex on variables other than years-since-degree; none were significant. The correlation matrix for all variables considered in the analysis appears in Appendix B.

Figure 1. Distributions of the Time Measures

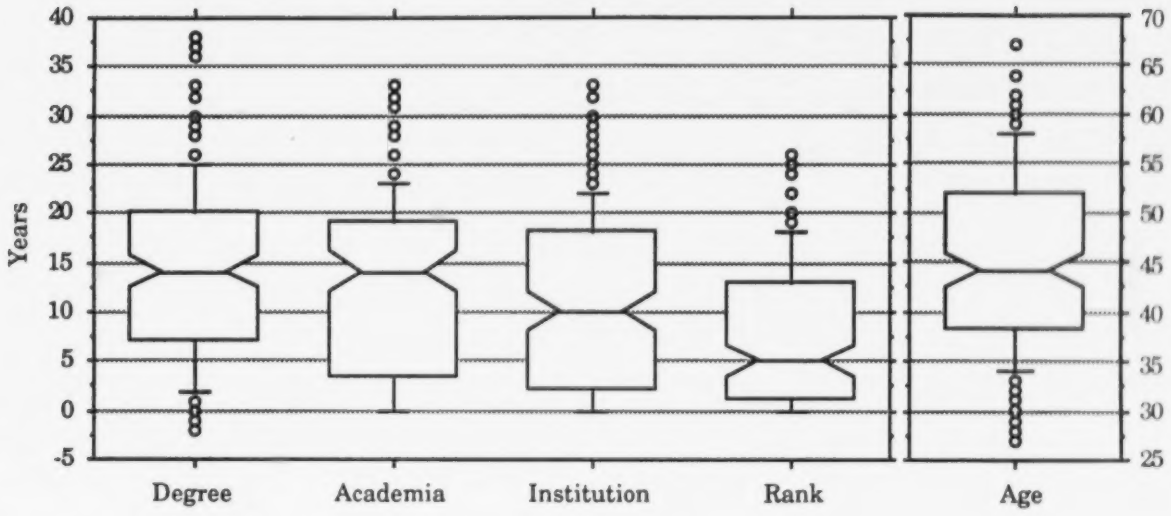
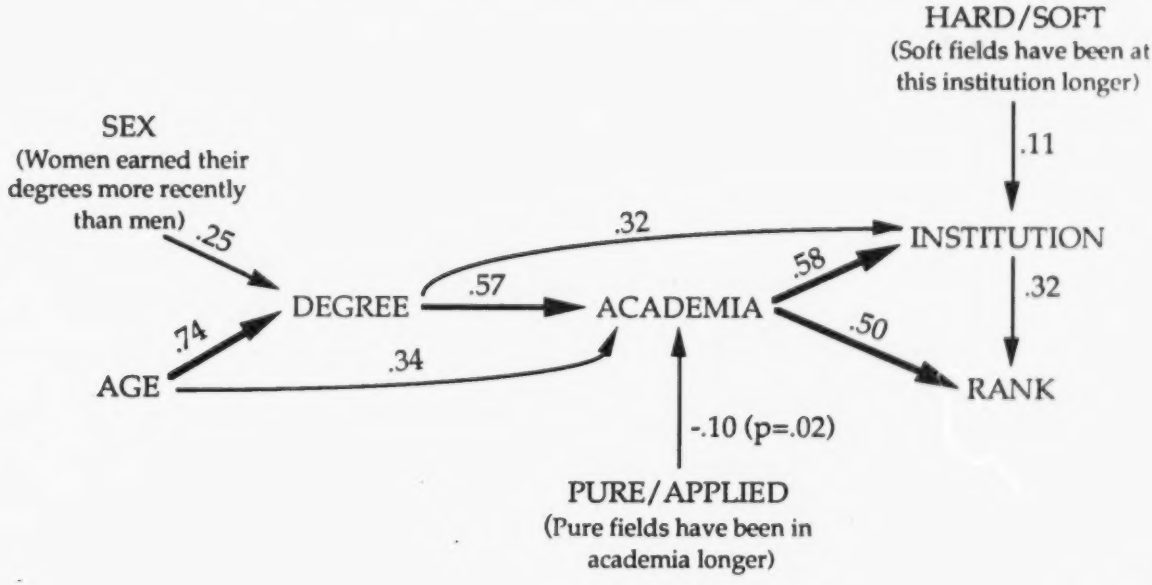


Figure 2. Final Path Model for the Time Measures



ANOVAs confirmed the absence of systematic differences in the developmental variables on the basis of discipline. There were significant differences among disciplines in years-in-institution. However, the lack of differences in years-since-terminal-degree and years-in-rank showed that institutional variations could be attributed to the history of this particular university and were not inherent in the disciplines.

The relationships between the time measures and goal categories varied. Some categories showed no significant change over time, some showed consistent changes across all time measures, and some showed significant changes that varied across the measures. Tables showing the average number of goals listed in each category across the times measures appear in Appendix C.

Teaching, writing and publishing, promotion, educational, administrative, practice, and service goals showed no significant variations across chronological age or the career measures. For the last four goal categories (education, administration, practice, service), the lack of significant changes may be related to low numbers of goals. Educational goals were steady during the first half of the career, but virtually disappeared in the latter half. Administrative goals were lowest at career entry and peaked in mid career. Practice goals varied inconsistently across the time measures. Service goals were low early in the career, disappeared in mid career, and were highest at the end of the career, as reported by Lawrence (1984).

The first three categories represented stable career elements. Writing and publishing, and promotion goals were consistent throughout most of the career, showing only small declines as retirement approached. Teaching goals remained constant across all stages and measures; seemingly a "given" for many faculty.

Professional, tenure, and retirement goals showed consistent trends across all time measures. Goals for professional advancement (including tenure and promotion) were highest early in the career and declined steadily throughout its course. Tenure, analyzed as a separate category, showed a precipitous decline after the early years. Retirement goals were absent in early and mid career; they increased slightly in late career and dramatically in the final stage.

Research, life-away-from-work, and curricular goals showed patterns of change that varied across the time measures. When measured against years-since-terminal-degree, research goals showed a bimodal distribution similar to that described by Bayer and Dutton (1977). Research goals declined steadily as a

function of age; years-in-academia and years-at-current-institution showed similar, nonsignificant declines. Like retirement goals, life-away-from-work goals were highest in the final stage. During the career, life goals oscillated in patterns that varied somewhat from measure to measure but suggested that career entry and mid career were associated with an increase in these goals. As mentioned in an earlier section, the inconsistent patterns generated by the curricular goals suggested that this category included qualitatively different goals.

There is another sense in which change over time can be measured: The relative positions of various goals may change. A comparison of the relative strengths of core goals showed that professional advancement took precedence over all other goals at career entry, although the difference between professional and research goals was not significant. In early career stages, research goals were stronger than teaching goals and writing and publishing goals (in this case, not significantly). Teaching gained in relative position as careers advanced, although differences only reached significance for professional and research goals in the pre-retirement stages, and were never significant for writing and publishing goals.

Stuckness. Some have suggested that an oversupply of tenured faculty has resulted in a significant number of professors who are "stuck" and in need of new opportunities to develop (Clark and Lewis, 1985). The variable, years-in-current-rank, was included as a measure of "stuckness" but proved to be inadequate early in the analysis. Years-in-rank was related to rank itself: Assistants spent less time in rank than associate or full professors (3.5 years, vs. 10.0 for associates and 9.3 for full professors). Years-in-rank was unrelated to all goal categories when rank was controlled. In addition, full professors cannot be designated as "stuck" on the basis of their time in rank alone since there is no higher rank to which they can be promoted. Therefore, a new measure was created in which all assistant and associate professor in rank ten or more years were designated as "stuck" and those with less than ten years in rank were designated "not stuck." Full professors were excluded from this analysis, leaving a sample of 96 faculty for this analysis.

Two-way ANOVAs using rank and "stuckness" as the independent variables showed that "stuck" faculty were significantly older, had held their degrees longer, had been in academia longer, and had been at this institution longer than other faculty. More men than women were classified as "stuck," but the difference was significant only at p=.1. "Stuck" faculty had more retirement goals and fewer research goals than other faculty. They listed fewer goals overall, although the difference was not statistically significant. No other goal differences were found.

Discussion

What kinds of goals do faculty have? Faculty throughout the university shared a common core of goals for professional advancement, research, writing and publishing, and teaching. Goals in these areas can be explored and discussed within the context of the academic enterprise as a whole, since they appear in some form in all ranks, disciplines, and stages. This does not imply, however, that differences across the various dimensions can be ignored. On the contrary, the differences provide the context within which common goals can be understood.

Outside the core areas, faculty have diverse goals that reflect the special characteristics of disciplines (educational and practice/performance goals) or interests of individuals (administrative and curricular goals). The inclusion of life-away-from-work goals in responses to a career survey illustrates the intertwining of the professional and personal lives of university faculty, explored most recently by Sorcinelli and Near (1989).

The content analysis, with the exception of the curricular category, appears to provide a valid means of classifying goals for analysis while preserving the details of individual goals. The structured coding permits analysis at several levels of detail when sufficient data points are available.

Do goals differ on the basis of personal or academic characteristics? The absence of goal differences on the basis of sex or marital status is notable. A preference for teaching has sometimes been offered as a reason for the lesser achievements of women in research and in higher education generally. The data presented here showed no differences between men and women in any goal categories, a finding supported by related work. Clark and Corcoran (1986) examined the professional socialization of women faculty and found that colleagues and mentors often had lower expectations for women, not that women has lower aspirations for themselves. The lack of relationships between goals and personal characteristics suggests that differences in achievement between men and women, or married and unmarried faculty, are not due to differences in aspirations.

Rank appears to have little utility in understanding career goals, although promotions in rank are themselves important goals for faculty. Rank is correlated with age and career tenure, and in all cases one of the chronological measures was a better predictor of goal patterns than rank alone. For example, research goals declined with age but not rank, consistent with Fulton and Trow's findings (1974).

Academic discipline had a significant but limited impact on goals in this study. The Biglan approach to grouping academic disciplines for analysis allowed a full range of disciplines to be included in the sample. At the level of analysis used here, however, differences between disciplinary areas reflected familiar understandings of the university and core goals were shared across all areas. It seems likely that a more detailed analysis of specific goals within categories would reveal more distinct disciplinary patterns.

One finding related to academic disciplines may be relevant for future research: Disciplinary area had little impact on the time measures. This suggests that, where significant disciplinary differences are found, such differences can be attributed to characteristics of the disciplines themselves and not interpreted as mere by-products of differing career patterns.

Do goals change over time? Strictly speaking, this study cannot answer that question. The cross-sectional caveat must apply. The data showed that faculty of different ages and different stages of disciplinary, academic, and institutional tenure held significantly different careers goals. Whether this was due to individual change over time (a developmental cause) or to historical differences between the age groups in the sample (a demographic cause) cannot be determined from this study alone.

There is some support, however, for believing that career changes are primarily developmental rather than demographic in origin. Havighurst et al. (1979) compared their cross-sectional sample with earlier studies and concluded that patterns of change had remained similar over time. Longitudinal analyses of national faculty surveys have found that patterns of change in faculty productivity reflect individual change over time more strongly than historical influences (Lawrence and Blackburn, 1988).

The analyses of research goals reported here corroborate other studies of faculty interests and values. They support the conclusion that research goals are high at career entry and decline thereafter, although whether the pattern is linear or bimodal is unclear. The parallel between research and professional advancement goals fits what we know of the link between research productivity and advancement in universities. The distinction between research goals and writing and publishing goals is an important one, since research performance is often measured as frequency of publication. The decline in research goals while writing and publishing goals remain steady may explain the reported saddle-shaped curve in publications (Bayer and Dutton, 1977), as faculty shift from publishing original

contributions to writing synthetic or evaluative assessments of their disciplines.

These analyses shed new light on some apparent contradictions in research on the teaching role. On one hand, teaching goals remained constant over the course of the career, as reported by Blackburn (1985). The decline in research goals, however, meant that over time teaching goals became more salient than research goals, which could explain why faculty identify themselves primarily with teaching late in their careers (Fulton and Trow, 1974).

The concept of "stuckness" as a measure of faculty vitality was not strongly supported in this study. Measuring "stuckness" strictly on the basis of time in rank is problematic, given the flat structure of academic careers. When a subset of "stuck" faculty was identified, the concept contributed little to understanding this group. The findings that "stuck" faculty had fewer research and more retirement goals than other faculty could be attributed as easily to their greater age or career longevity as to their extended time in rank.

How can change over time be measured? In studies of faculty careers, measures of time often reflect underlying assumptions about the causes of change. Yet even if one accepts that individual change deserves greater emphasis than historical influences, another caveat must be emphasized: Knowledge of change over time does not imply an understanding of its causes. Some studies postulate a model of psychological development in adulthood which holds that career change reflects normal maturation and that the process of change is uniform and inevitable; these studies focus on age as the correlate of change (Baldwin and Blackburn, 1981; Entrekin and Everett, 1981; Stumpf and Rabinowitz, 1981). Other studies employ socialization models which hold that individuals change in response to rewards and constraints in the environment; these rely on measures of career tenure (Fulton and Trow, 1974; Bayer and Dutton, 1977).

Although psychological models are attractive in that they offer a straightforward method for predicting change, there is little empirical support for them (Mann, 1987). Havighurst, et al. (1979) found that, even within disciplines, highly productive researchers had different career patterns and lifestyles than less active faculty; nor did career events for these faculty cluster at chronological or career ages (Blackburn and Havighurst, 1979). Blackburn's (1985) model of academic career development did not include psychological components because they failed to fit the data available. Dannefer (1984) has pointed out the theoretical limitations of adult development models.

Socialization models are more difficult to develop and often used in a descriptive, rather than predictive, sense. Predicting changes from a socialization model requires that environmental factors be specified and measured and the relationships between the environment and the individual be described. Socialization approaches are favored by sociologists with an interest in social systems, and by managers and consultants to managers, because change in behavior is possible if appropriate environmental changes can be effected. The literature on faculty vitality is a current example (e.g., Clark and Lewis, 1985).

Lawrence and Blackburn (1988) offer the "life-course perspective" as a means of integrating demographic, adult development, and socialization models. They recommend longitudinal research using random samples from the same population to provide data that can be analyzed to partial out age, cohort and environmental effects. Analysis within samples would distinguish between "biographical time" (age, which they link to adult development) and "social time" (career tenure, which they link to socialization). Comparison across samples would provide information on cohort effects. Their secondary analyses of national faculty surveys using this approach favor socialization models modified by historical trends, offering little support for adult development theories.

Despite integrating several approaches into a single model, the life-course perspective may not be adequate to represent the complexity of the academic career. Finkelstein (1986) distinguishes between the Disciplinary Career, the Institutional Career, and the Academic Career, and notes that the reward system in academia must include at least disciplinary and institutional subsystems. Burton Clark (1987) sees academic careers as primarily defined by the disciplines, but also refers to an "institutional axis" which places the faculty career in "a matrix of disciplinary affiliations and institutional assignments" (p. 188). Bowen and Schuster (1986) see the impact of career subsystems primarily in the tensions between the socialization to discipline-based research that faculty receive in graduate school and the institutional pressure to teach they often confront in their first appointments.

This study suggests that useful distinctions can be made between various career dimensions and that time measures should be compatible with the career dimension under study. The disciplinary career commences with receipt of a degree; of the career measures, only years-since-terminal-degree showed statistically significant changes in research goals. In contrast, professional advancement in the forms of tenure and promotion is conferred by a specific institution, and years-at-this-institution showed the greatest drops in these goals

in the final career stages. The rise in retirement goals is also seen most clearly in the institutional dimension.

Goals that are not closely linked to a particular career dimension may need to be studied from several perspectives. The patterns of change in life-away-from-work goals, for example, vary across the time measures. Chronological age shows a drop in personal goals at mid life and a rise as retirement age approaches. The disciplinary dimension shows that personal goals are highest at the end of the career, with smaller peaks at mid career and career entry. The institutional dimension suggests that personal goals are highest among faculty who have recently joined the institution and who are preparing to leave it; while the academic dimension presents an undifferentiated pattern of personal goals.

Considering the academic career as a set of interacting subsystems could explain some of the difficulty in relating research and teaching in consistent ways. While research goals, performance, and rewards are related most closely to the discipline, teaching is oriented to the needs and goals of a particular academic institution. Clearly, the institutional environment has a critical impact on both teaching and research through the types of supports and sanctions it provides. However, two central faculty roles responding to pressures from different subsystems could result in contradictory assessments of interactions between research and teaching.

To see faculty within a matrix of interacting career dimensions is to recognize both the complexity of the endeavor and the richness of the environment. A multidimensional career model could serve as a theoretical base for a variety of research methods exploring how subsystems interact in the careers of individual faculty. The analyses presented here suggest that a multidimensional approach to the study of academic careers offers a more complete picture of how faculty pursue their professional goals.

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Appendix A. Faculty Career Goals

[n] = the number of faculty who listed a specific goal
<<n>> = the number of goals listed in a particular category

I. Educational Goals <<29>>
   A. study in a new field to prepare for a career change [9]
   B. doctoral studies <<16>>
      1. begin PhD work [5]
      2. complete PhD work [11]
   C. obtain post-graduate certification in my field [4]

II. General Professional Goals <<150>>
   A. become oriented to academia, learn the professorial role [4]
   B. continue to grow and be productive, do well [14]
   C. feel secure in my position, survive [5]
   D. continue in my present career course [16]
   E. advance within the profession <<85>>
      1. establish a strong reputation [8]
      2. make more money [4]
      3. get a full-time tenure-track position [5]
      4. receive a promotion [37]
      5. receive tenure [31]
   F. consider career changes [2] <<26>>
      1. consider positions at other universities [10]
      2. decide whether to stay in academia [4]
      3. begin a new career (perhaps combined with academia) [10]

III. Curricular Goals <<47>>
   A. influence curriculum within my field [6]
   B. develop interdisciplinary programs or curricula [4]
   C. develop my department or area <<37>>
      1. establish good courses or curricula in my area [7]
      2. develop or strengthen programs in my area [16]
      3. improve teaching within my area [4]
      4. start or strengthen graduate programs [10]

IV. Teaching Goals <<98>>
- A. get more teaching experience or do more teaching [3]
- B. continue my current teaching assignments [38]
- C. improve my teaching [21]
- D. be an outstanding, excellent teacher [5]
- E. develop new teaching areas or approaches [15]
- F. reduce my current teaching [1]
- G. receive recognition and/or reward for teaching [3]
- H. participate in training students, maintain student contact [12]

V. Research Goals <<137>>
- A. develop my research skills [4]
- B. develop my research plans in my field [13]
- C. continue with my current research [30]
- D. complete research projects underway [12]
- E. be good at or excellent in research [3] <<21>>
  1. establish a good program of research [10]
  2. contribute to field or make breakthroughs [4]
  3. receive recognition or reward for research [4]
- F. increase my research activity [15]
- G. expand my interests or develop new areas of research [12]
- H. get (more) grants [23]
- I. go on sabbatical [2]
- J. participate in conferences in my field [5]

VI. Writing and Publishing Goals <<111>>
- A. write [4] <<57>>
  1. improve my writing skills [4]
  2. complete work-in-progress [9]
  3. revise published works for later editions [4]
  4. write articles [5]
  5. write books [31]
- B. publish [14] <<54>>
  1. increase my frequency of publication [4]
  2. get work-in-progress published [7]
  3. publish (significant) articles [11]
  4. publish books [18]

VII. Administrative Goals <<46>>
- A. develop the experience/skills for administration [3]
- B. get into or do more administration [13]
- C. continue to be active in my current assignments [8]
- D. seek promotion to an administrative position [2] <<18>>
  1. department chair [7]
  2. dean or directorship [8]
  3. vice-president or other executive position [2]
- E. reduce my administrative responsibilities [3]

VIII. Professional Practice or Performance Goals <<36>>
- A. improve my practice/performance skills [7]
- B. expand my professional practice/performance [12]
- C. continue my professional practice/performance/consulting [14]
- D. receive awards or recognition for practice/performance
- E. discontinue my professional practice/performance [1]

IX. Professional Service Goals <<23>>
- A. service to the university [1]
- B. service to the profession [7]
- C. service to students [6]
- D. service to the community, based on professional skills [9]

X. Retirement Goals<<41>>
- A. prepare for my retirement [9]
- B. seek early retirement [5]
- C. begin phased retirement [10]
- D. retire [9]
- E. continue scholarly work after retirement [3]
- F. make career change on retirement [4]
- G. postpone retirement [1]

XI. Life-away-from-work Goals <<59>>
- A. enjoy hobbies or interests [7]
- B. have a happy, healthy life [5]
- C. reach goals related to children and family life [17]
- D. relocate [9]
- E. settle into this community [4]

F. travel [6]
G. write (popular, not scholarly, writing) [5]
H. participate in church-related activities [3]
I. achieve misc. unique goals [3]

XII. No clear career goals/undecided [5]

Appendix B. Correlations Among Variables Used in the Path Analysis

	age	degree	academia	institution	rank	sex	pure/ applied	nonlife/ life
age	1							
degree	.74	1						
academia	.76	.82	1					
institution	.72	.8	.85	1				
rank	.65	.67	.77	.75	1			
sex	.04	.3	.26	.26	.2	1		
pure/applied	-.03	-.11	-.18	-.17	.02	-.05	1	
nonlife/life	-.13	-.2	-.22	-.18	-.09	-.08	.03	1
hard/soft	.22	.07	.15	.24	.18	-.19	.03	-.07

N=138

Appendix C. Average Number of Goals Listed in Each Career Stage

Goal Category Time Measure	Years 0-4	5-9	10-14	15-19	20-24	25+	p
Professional Advancement							
Degree	1.22	1.33	.93	.46	.32	.58	<.01
Academia	1.43	1.05	.67	.50	.52	.40	<.01
Institution	1.38	.59	.50	.66	.15	.27	<.01
Age*	1.10	1.32	.81	.51	.58	.74	<.01
Tenure							
Degree	.38	.37	.14	.03	0	.05	<.01
Academia	.38	.32	.06	0	0	0	<.01
Institution	.38	.05	.07	0	0	0	<.01
Age*	.25	.46	.06	.09	.05	.09	<.01
Promotion							
Degree	.22	.37	.21	.13	.08	.11	–
Academia	.31	.27	.17	.14	.16	.10	–
Institution	.25	.23	.21	.22	.08	0	–
Age*	.25	.38	.25	.09	0	.21	–
Teaching							
Degree	.66	.50	.50	.49	.68	.37	–
Academia	.71	.50	.28	.58	.48	.50	–
Institution	.60	.45	.43	.59	.62	.55	–
Age*	.60	.65	.28	.74	.47	.50	–

*Age was divided into five-year intervals ranging from <35 to 55+.

Goal Category / Time Measure	Years 0-4	5-9	10-14	15-19	20-24	25+	p
Research							
Degree	1.12	1.07	.50	.92	.48	.26	<.01
Academia	1.07	.95	.72	.86	.52	.30	–
Institution	1.00	.95	.64	.76	.31	.36	–
Age*	1.30	.86	.91	.82	.42	.24	<.01
Writing and Publishing							
Degree	.88	.67	.68	.51	.72	.16	–
Academia	.76	.50	.72	.67	.68	.10	–
Institution	.66	.50	1.00	.63	.85	.27	–
Age*	.70	.65	.59	.71	.84	.38	–
Service							
Degree	.19	.13	.04	.05	.16	.26	–
Academia	.17	.09	0	.06	.24	0	–
Institution	.17	.09	.07	.02	.46	0	–
Age*	.10	.19	.06	.09	.05	.24	–
Administration							
Degree	0	.33	.25	.36	.28	.16	–
Academia	.05	.36	.39	.28	.28	.1	–
Institution	.13	.36	.21	.29	.23	.18	–
Age*	.15	.16	.41	.44	.21	.15	–
Practice/Performance							
Degree	.16	.17	.39	.15	.2	.11	–
Academia	.29	.5	.11	.03	0	.4	<.05
Institution	.19	.5	.21	.15	0	0	–
Age*	.1	.46	.09	.21	.16	.12	–

*Age was divided into five-year intervals ranging from <35 to 55+.

Goal Category Time Measure	Years						p
	0-4	5-9	10-14	15-19	20-24	25+	
Life-Away-From-Work							
Degree	.38	.13	.50	.21	.20	.68	<.05
Academia	.31	.32	.17	.50	.36	.50	–
Institution	.36	.23	.29	.15	.46	1.00	<.05
Age*	.15	.38	.09	.35	.21	.68	<.05
Retirement							
Degree	0	0	.11	.18	.40	1.11	<.01
Academia	0	.05	.11	.25	.40	1.10	<.01
Institution	0	.05	0	.39	.38	1.36	<.01
Age*	0	0	.12	.06	.42	.79	<.01
Education							
Degree	.22	.27	.18	.10	.08	0	–
Academia	.29	.14	.28	.06	.04	0	–
Institution	.23	.14	.36	.05	.08	0	–
Age*	.25	.19	.16	.21	.05	.12	–
Curriculum and Program Development							
Degree	.25	.03	.32	.21	.44	.53	–
Academia	.10	.09	.72	.19	.24	.20	<.05
Institution	.28	.14	.36	.12	.23	.27	–
Age*	.10	.16	.19	.32	.37	.44	–

*Age was divided into five-year intervals ranging from <35 to 55+.